

REMARKS

This is a full and timely response to the Office Action mailed February 26, 2008. Reconsideration in view of the following remarks is respectfully solicited.

Claims 13-20 and 34-49 are pending in this application, with claims 13, 34, and 42 being the independent claims. Claims 34-49 have been withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 13, 14, and 20 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,621,451 to Fisher et al. (“Fisher”) in view of U.S. Patent Application Publication No. 2004/0263516 to Michail et al. (“Michail”) and further in view of U.S. Patent No. 5,335,319 to Obata (“Obata”). This rejection is respectfully traversed.

Independent claim 13 recites “completely representing the trapezoids as triangles.” The Office Action acknowledges that Fisher fails to disclose “representing the trapezoids as triangles” and that Michail only discloses representing a portion of each trapezoid with triangles. Instead, the Office Action cites Obata as allegedly disclosing a polygon division method that fully represents each trapezoid as two triangles, particularly citing Fig. 17; col. 2, line 67 to col. 3, line 23 of Obata. The Office Action further alleges that one skilled in the art would utilize the process of Obata “to use polygons of the simplest construction to enable filling of and display of polygons at high speeds,” as allegedly discussed in col. 1, lines 11-21 of Obata.

Obata does, in fact, disclose a “method (III)” in which a formed trapezoid is divided into two triangles with a diagonal line. (Obata, col. 3, lines 11-12). However, it is noted that this method of Obata is in the Background section and Obata explicitly teaches away from such a method. Obata states:

The method (III) generates new apexes because the method generates trapezoids based on scanning lines which pass through corresponding apexes and divides each generated trapezoid into two triangles. Consequently, an obtained triangle is deformed when the calculation accuracy for generating a new apex is not improved to a sufficient accuracy. Also, depth values and color values may include errors in

matching portions of neighbouring triangles and a vacant portion may be generated between neighbouring triangles....

The disadvantage arises in the methods (I), (II), (III) and (IV) that operations are very complicated, quantities of software programs are large, and the quantity of data becomes large because of the quantity of information which is necessary for dividing a polygon into plural triangles. A polygon in which edges intersect one another (hereinafter referred to as a self-interference polygon) and a polygon in which plural apexes overlap one another at one point (hereinafter referred to as a degeneracy polygon) may not be divided into plural triangles properly. (Obata, col. 4, lines 22-45).

As such, contrary to the allegation in the Office Action, Obata does not disclose that dividing the trapezoid into two triangles is the “simplest construction” that achieves a “high speed.” Instead, Obata explicitly teaches the opposite, and that dividing the trapezoid into two triangles is “very complicated” and would slow down the processor. Obata also teaches that this method introduces errors in the depth and color values and fails to improve accuracy. In the Detailed Description, Obata subsequently discloses alternative methods that do not include dividing the trapezoid into two triangles that allegedly achieve the stated objective of providing a simpler method. Accordingly, it is respectfully submitted that one skilled in the art would not combine Obata with Fisher and Michail as suggested by the Office Action.

Additionally, one skilled in the art could not modify Michail as disclosed in the Office Action, i.e., by dividing the trapezoid into two triangles. Michail discloses a method that provides triangles on the edge of the trapezoid and overlap outside of the trapezoid. Michail relies upon this method to identify the scanline-boundary of the trapezoid. (See, e.g., Michail paragraph [0065]). Dividing the trapezoid into two triangles is not necessary in Michail and would, in fact, interfere with the object of Michail.

Accordingly, claim 13 distinguishes over the cited prior art. Claims 14 and 20 depend on claim 13 and distinguish over the cited references at least for that reason.

Claim 15 is rejected under 35 U.S.C. § 103 as being unpatentable over Fisher, Michail, Obata, and further in view of U.S. Patent No. 6,226,000 to Richens. (“Richens”). This rejection is respectfully traversed. Richens fails to cure the deficiency of the rejection of claim 13 discussed above, and claim 15 distinguishes over the cited references at least for depending on claim 13.

Claim 16 is rejected under 35 U.S.C. § 103 as being unpatentable over Fisher, Michail, Obata, and further in view of U.S. Patent Application Publication No. 2004/0263516 to Mukoyama et al. (“Mukoyama”). This rejection is respectfully traversed. Mukoyama fails to cure the deficiency of the rejection of claim 13 discussed above, and claim 16 distinguishes over the cited references at least for depending on claim 13.

Claim 17 is rejected under 35 U.S.C. § 103 as being unpatentable over Fisher Michail, Obata, and further in view of U.S. Patent No. 5,900,881 to Ikeda. (“Ikeda”). This rejection is respectfully traversed. Ikeda fails to cure the deficiency of the rejection of claim 13 discussed above, and claim 17 distinguishes over the cited references at least for depending on claim 13.

Claim 18 and 19 are rejected under 35 U.S.C. § 103 as being unpatentable over Fisher, Michail, Obata, and further in view of “Computer Graphics: Principles and Practice, Second Edition” by Foley (“Foley”). This rejection is respectfully traversed. Foley fails to cure the deficiency of the rejection of claim 13 discussed above, and claim 18 and 19 distinguish over the cited references at least for depending on claim 13.

Conclusion

Applicant submits that the present application is in condition for allowance. Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-noted Office Action, and an early Notice of Allowance are requested.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

If for some reason Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge Ingrassia, Fisher & Lorenz, Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

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By: /CHAD C. ANDERSON, REG. NO. 44505/

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